

BS in Physics - Engineering Physics Option

Program Requirements

A student majoring in physics may select an engineering physics option.

Course	Title	Hours
PHYS 313 & PHYS 315	Physics for Scientists I and University Physics Lab I ¹	5
PHYS 314 & PHYS 316	Physics for Scientists II and University Physics Lab II ¹	5
PHYS 551	Topics in Modern Physics	3
PHYS 621	Analytical Mechanics	3
PHYS 631	Electricity and Magnetism	3
PHYS 641	Thermophysics	3
PHYS 651	Quantum Mechanics I	3
MATH 555	Differential Equations I	3
Select one of the following MATH courses		3
MATH 511	Linear Algebra	
MATH 547	Advanced Calculus I	
MATH 757	Partial Differential Equations for Engineers	
Select 10 credit hours in chemistry		10
Select three semesters from the following		6
PHYS 516	Advanced Physics Laboratory	
PHYS 517	Electronics Laboratory	
PHYS 616	Computational Physics Laboratory	
Select four courses approved by the physics department from a given engineering department		
Total Credit Hours		47

¹ PHYS 213/ PHYS 214 may be taken instead of PHYS 313/ PHYS 315 and PHYS 314/ PHYS 316.

With departmental approval, the engineering courses could substitute for required courses covering similar topics.

Applied Learning

Students in the BS in physics are required to complete an applied learning or research experience to graduate from the program. The requirement can be met in several ways. Students can take PHYS 516, PHYS 481 or engage in undergraduate research PHYS 600/ PHYS 601.